

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1-2. (Canceled)

3. (Currently Amended) The treating solution ~~for surface treatment of metal~~ according to claim 18~~claim 1~~, further containing 1000 to 50000 ppm of a nitrate group.

4. (Currently Amended) The treating solution ~~for surface treatment of metal~~ according to claim 18~~claim 1~~, further containing at least one oxygen acid and/or salt of oxygen acid selected from the group consisting of HClO_3 , HBrO_3 , HNO_2 , HNO_3 , HMnO_4 , HVO_3 , H_2O_2 , H_2WO_4 , H_2MoO_4 and salts thereof.

5. (Currently Amended) The treating solution ~~for surface treatment of metal~~ according to claim 18~~claim 1~~, further containing at least one polymer compound selected from the group consisting of water-soluble~~water-soluble~~ polymer compounds and water-dispersible~~water-dispersible~~ polymer compounds.

6. (Currently Amended) The treating solution ~~for surface treatment of metal~~ according to claim 18~~claim 1~~, further containing at least one surface-active~~surface-active~~ agent selected from the group consisting of nonionic surface-active~~surface-active~~ agents, anionic surface-active~~surface-active~~ agents and cationic surface-active~~surface-active~~ agents.

7. (Currently Amended) A method for surface treatment of a metal comprising, contacting independently ~~each metal~~

~~material or simultaneously two or more collectively at least~~
~~one metal material~~ materials selected from the group consisting
of a ferriferous material, a zinciferous material, an
aluminiferous material and a magnesiferous material with the
treating solution ~~for surface treatment according to claim~~
~~18~~claim 1.

8. (Currently Amended) The method ~~for surface~~
~~treatment of metal according to claim 7, comprising, further~~
contacting the at least one metal material ~~or the two or more~~
~~metal materials with an~~ acidic aqueous solution of a compound
containing at least one element selected from the group
consisting of cobalt, nickel, tin, copper, titanium and
zirconium, after ~~contacte~~ontacting with the treating solution
~~for surface treatment, with or without washing by water.~~

9. (Currently Amended) The method ~~for surface~~
~~treatment of metal according to claim 7, comprising, further~~
contacting the at least one metal material ~~or the two or more~~
~~metal materials with a~~ treating solution containing at least
one polymer compound selected from water-soluble~~water soluble~~
polymer compounds and water-dispersible~~water dispersible~~
polymer compounds, after ~~contacte~~ontacting with the treating
solution ~~for surface treatment, with or without washing by~~
water.

10. (Currently Amended) A method for surface treatment
of a metal comprising, electrolytically~~electrolytic~~ treating
in the treating solution for surface treatment claim 18~~claim~~
~~1, wherein independently each metal material or simultaneously~~
~~two or more the at least one metal material~~ materials selected
~~from the group consisting of ferriferous material, zinciferous~~
~~material, aluminiferous material and magnesiferous material~~
~~are~~ is a cathode.

11. (Currently Amended) The method for surface treatment of metal according to claim 10, comprising, further contacting the at least one~~the~~ metal material ~~or the two or more metal materials~~ with an acidic aqueous solution of a compound containing at least one element selected from the group consisting of cobalt, nickel, tin, copper, titanium and zirconium, after electrolytic treatment~~treating~~ in the ~~treating solution for surface treatment~~, with or without washing by water.

12. (Currently Amended) The method for surface treatment of metal according to claim 10, comprising, further contacting the at least one~~the~~ metal material ~~or the two or more metal materials~~ with a treating solution containing at least one polymer compound selected from water-soluble~~water~~ soluble polymer compounds and water-dispersible~~water~~ dispersible polymer compounds, after electrolytic treatment~~treating~~ in the ~~treating solution for surface treatment~~, with or without washing by water.

13. (Currently Amended) A method for surface treatment of metal comprising, contacting independently ~~each metal material or simultaneously two or more~~ collectively at least one metal material~~materials~~ selected from the group consisting of a ferriferous material, a zinciferous material, an aluminiferous material and a magnesiferous material, whose surface is not degreased and cleaned with the treating ~~solution for surface treatment~~ according to claim 6.

14. (Currently Amended) A metal material having a surface-treated~~surface-treated~~ film containing at least one metal element selected from the group consisting of titanium and zirconium formed on a surface of an iron metal material by the method ~~for surface treatment~~ according to claim 7, wherein an adhesion amount of the surface-treated~~surface-treated~~ film, calculated as the metal element, is 30mg/m² or more.

15. (Currently Amended) A metal material having a surface-treated~~surface-treated~~ film containing at least one metal element selected from the group consisting of titanium and zirconium formed on a surface of a zinc metal material by the method ~~for surface treatment~~ according to claim 7, wherein an adhesion amount of the surface-treated~~surface-treated~~ film, calculated as the metal element, is 20mg/m^2 or more.

16. (Currently Amended) A metal material having a surface-treated~~surface-treated~~ film containing at least one metal element selected from the group consisting of titanium and zirconium formed on a surface of an aluminum metal material by the method ~~for surface treatment~~ according to claim 7, wherein an adhesion amount of the surface-treated~~surface-treated~~ film, calculated as the metal element, is 10mg/m^2 or more.

17. (Currently Amended) A metal material having a surface-treated~~surface-treated~~ film containing at least one metal element selected from the group consisting of titanium and zirconium formed on a surface of a magnesium metal material by the method ~~for surface treatment~~ according to claim 7, wherein an adhesion amount of the surface-treated~~surface-treated~~ film, calculated as the metal element, is 10mg/m^2 or more.

18. (New) An aqueous surface-treating solution capable of treating independently or collectively at least one metal material selected from the group consisting of a ferriferous material, a zinciferous material, an aluminiferous material and a magnesiferous material, the treating solution containing 5 to 5000 ppm of a zirconium compound, calculated as metal zirconium, 0.1 to 100 ppm of free fluorine ion, at least one compound selected from the group consisting of 5 to 100 ppm of a calcium compound, calculated as metal calcium, 10 to 5000 ppm of a magnesium compound, calculated as metal magnesium,

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and 10 to 5000 ppm of a strontium compound, calculated as metal strontium, and having a pH of 2 to 6.